

367645

ORIGINAL

REMEDIAL DESIGN WORK PLAN
ABEX SUPERFUND SITE, PORTSMOUTH, VIRGINIA

Prepared for
Pneumo-Abex Corporation

Prepared by
GEO Engineering, Inc.

February 1996
Revised May 1996

/// GEO Engineering

.....
150 Mineral Spring Drive
Dover, New Jersey
(201) 361-3600

Table of Contents

1.0 INTRODUCTION.....	1
1.1 Purpose of Remedial Design Work Plan (RDWP)	1
1.2 RDWP Organization	1
2.0 SITE HISTORY.....	2
2.1 Site Description	2
2.2 Site Operations	2
2.3 Environmental Investigations/Remediations	2
3.0 REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS).....	5
3.1 Remedial Investigation.....	5
3.2 Feasibility Study	6
4.0 REMEDIAL DESIGN WORK PLAN	7
4.1 Overview of Design Process	7
4.2 Design Submittals	7
4.2.1 Preliminary Design Submittal	8
4.2.2 Pre-Final Design Submittal.....	8
4.2.3 Final Design Submittal	9
5.0 RECORD OF DECISION	9
5.1 Soil Excavation.....	10
5.1.1 Performance Standards	10
5.1.2 Additional Components.....	10
5.2 Soil Treatment and Disposal	11
5.2.1 Performance Standards	11
5.2.2 Additional Components.....	12
5.3 Building Demolition.....	13
5.3.1 Performance Standard.....	13
5.3.2 Additional Components.....	13
6.0 SCHEDULE OF RDWP.....	13

ORIGINAL
(Roc)

1.0 INTRODUCTION

On January 4, 1996, Pneumo Abex Corporation (Abex) and the United States Environmental Protection Agency (EPA) entered into a Consent Decree for the remediation of lead-containing soils at the former Abex foundry in Portsmouth, Virginia (Site). GEO Engineering (GEO), has prepared this Remedial Design Work Plan (RDWP) on behalf of Abex and in accordance with Section VI.C. of the Consent Decree.

1.1 Purpose of Remedial Design Work Plan (RDWP)

The RDWP provides for the design of the remedy as set forth in pages 52-57 of the August 1994 Amended Record of Decision (ROD), and the Explanation of Significant Differences (ESD) in Appendix D of the Consent Decree. The RDWP describes the process to be undertaken by Abex to develop a Remedial Design that complies with the requirements of the Amended ROD and the Consent Decree. Below we summarize the contents of the RDWP.

1.2 RDWP Organization

- Section 2 is a discussion of Site history including industrial operations and a chronology of the environmental investigation and remediation conducted at the Site.
- Section 3 is a summary of the Remedial Investigation/Feasibility Study conducted at the Site and its findings regarding the extent and magnitude of soil contaminants associated with the former Abex foundry operations.
- Section 4 gives an overview of the remedial design process in accordance with the Amended ROD specifications and the Consent Decree. The various components of the Preliminary, Pre-Final and Final Submittals are described in this section. The responsibilities and roles of Abex, GEO and the EPA are also discussed in this section.
- Section 5 summarizes relevant components of the August 1994 Amended Record of Decision.
- Section 6 presents a schedule for the completion of Remedial Design components.

Original
Record

2.0 SITE HISTORY

2.1 Site Description

The Site is comprised of the former Abex foundry, and surrounding residential and commercial areas within a 700-foot radius of the former foundry. The Site is located in the eastern section of Portsmouth immediately west of the Elizabeth River. The former Abex foundry is comprised of four buildings (referred to as the Holland Property), the former waste sand disposal lot (referred to as the Abex lot) and the McCready Lot. Surrounding residential areas include the Washington Park Housing (WPH) Development, owned by the Portsmouth Redevelopment Housing Authority (PRHA), the Effingham Playground, owned by the City of Portsmouth; and numerous single family houses known as the Effingham Residential Area and the Seventh Street Row Homes, which are privately owned. Commercial areas of the Site area consist of the City of Portsmouth Drug Rehabilitation Center and vacant lots, owned by the City of Portsmouth, east of the former foundry.

2.2 Site Operations

A brass and bronze foundry operated at the Site from at least 1928 to 1978. The foundry melted used railroad car journal bearings for the railroad industry, which were over 80% bronze, and poured the molten material into sand molds to cast new railroad bearings. The foundry processed the used journal bearings on a consignment basis. Naturally-occurring sands were used to prepare molds for the molten bronze generated during the recycling process. These sand casts eventually became laden with heavy metals such as lead, antimony, copper, tin and zinc. Spent sands were subjected to a final bronze recovery process and then disposed of in the sand disposal area (Abex Lot) to the north of the former foundry.

2.3 Environmental Investigations/Remediations

The following section briefly summarizes several investigations and interim remedial actions completed at and around the Site by local, state and federal agencies and by Abex. In addition, the section discusses the development of the Record of Decision and the Consent Decree for site remediation.

- On January 20, 1983, a field investigative team from the NUS Corporation conducted a non-sampling Preliminary Assessment at the Site. NUS was contracted by the U. S. EPA Region III to perform this field investigation.

ORIGINAL
(RUC)

The results of the NUS Assessment were summarized in a May 31, 1983 report to EPA. The report included brief discussions of foundry history, geology/hydrology and observations recorded during the assessment. A cover letter accompanying the report recommended a program of foundry sand sampling.

- On July 12, 1984, NUS personnel conducted a Site Inspection, during which four soil samples were collected. Test results of the three on-site soil samples (collected due east of the former foundry, across Seventh Street) indicated lead concentrations ranging from 450 to 10,400 mg/Kg. The designated background soil sample contained 2,750 mg/Kg lead. The results of the inspection and sampling were summarized in a March 25, 1986 NUS report.
- On April 2, 1986, EPA collected soil samples from WPH yards and other grounds at the Site. Analyses of these soil samples indicated lead concentrations ranging up to 12,800 mg/Kg. In response to these test results, the Agency for Toxic Substances and Disease Registry, a branch of the Center for Disease Control in Atlanta, recommended immediate remedial action at the Abex Site.
- In May 1986, Abex Corporation agreed to perform an initial cleanup of the Abex Lot and related soil contamination.
- In May 1986, the Portsmouth Health Department collected 110 soil samples from locations within approximately one mile of the Abex Site. This was done in conjunction with a door-to-door lead screening program for children 12 years and younger. These studies were conducted to determine whether or not a correlation existed between elevated concentrations of lead in the soil at certain residences and elevated levels of lead in the blood of children living at these residences. A newspaper article which appeared in the Virginian-Pilot on August 24, 1986, presented the results from this study. The article quoted Dr. R. D. Hunsaker, Director of the Portsmouth Health Department, as stating that none of the children with elevated lead levels in their blood lived within a one-half mile radius of the Abex Site. Hunsaker also stated that he believed that the elevated lead levels in afflicted children are due to lead-based house paints.
- A Consent Agreement and Order was executed between the Abex Corporation and the EPA on August 11, 1986. A CERCLA Emergency Removal Action was undertaken at the Site between October 1986 and 1989.
- GEO conducted a Remedial Investigation/Feasibility Study (RI/FS), beginning in November 1990, on behalf of Abex Corporation in accordance with the

ORIGINAL
FILED

October 10, 1989 Administrative Order on Consent (AOC) between Abex Corporation and the Virginia Department of Waste Management (VDWM). The investigation focused on the extent and magnitude of contaminants associated with the railroad journal bearings and the former Abex foundry operations. An additional objective was to distinguish between contamination related to the former foundry and contamination related to the other sources of contamination in the greater Portsmouth area.

- In March 1992, EPA issued a Unilateral Administrative Order to Abex requiring Abex to perform soil removal in Washington Park Housing, Effingham Playground and the two-block Effingham Residential Area. The removal action was conducted between July and September 1992; no excavation was done in the Effingham Residential Area because Abex was not granted access by the homeowners. EPA agreed to delay work in the residential blocks until the implementation of the remedy required by the ROD. Soil generated during the removal process was disposed of as special solid waste at a permitted solid waste facility in Virginia.
- In April 1992, EPA and the Commonwealth published a Proposed Plan describing the proposed remedial alternatives for the Site and requesting comments from the public. Alternative 7 was selected as the preferred alternative.
- In September 1992, EPA and the Commonwealth published a ROD selecting a remedy for the Site. The alternative selected (Alternative 4) required excavation of soil exceeding 500 mg/Kg of lead in residential areas to the water table. In commercial/industrial areas, the selected alternative required excavation of soil exceeding 500 mg/Kg of lead to a depth of 12 inches and soil exceeding 1,000 mg/Kg of lead to the water table.
- On October 19, 1993, Abex submitted proposed changes to the ROD based on new information obtained from the City of Portsmouth regarding the impact of proposed zoning changes, land-use plans and new institutional controls governing future excavation within the Site area.
- In August 1994, the EPA issued an Amended ROD containing a revised approach to Site remediation. The Amended ROD is discussed below in Section 5.0.
- Abex signed a Consent Decree and an Administrative Order on Consent on September 13, 1995, requiring Abex to perform remedial work at the Site in accordance with the August 1994 Amended ROD and the National Oil and

ORIGINAL
(Red)

Hazardous Substances Pollution Contingency Plan (NCP), 40 C. F. R. Part 300 (as amended). The fully executed Consent Decree was lodged with a federal court on January 4, 1996.

3.0 REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)

3.1 Remedial Investigation

The primary focus of the RI was to evaluate the nature and magnitude of any lead contamination in soil on and around the foundry property. In addition, the RI included a limited investigation of ground water, surface water, and sediments at the Site. The RI was conducted in an area within a 700-foot radius of the former Abex Foundry. This area is now referred to as Operable Unit 1 (OU-1). Below we summarize the findings.

Soil contamination was investigated by sampling and testing over 1,000 soil samples primarily for their lead content. However, of these samples, over 550 were also analyzed for fourteen other metals. Sweep samples for dust were collected from the interior of the foundry building and from the attics of two Seventh Street Row Homes. A number of the dust and soil samples collected on the Holland Property and in the Abex Lot were also analyzed for the complete list of priority pollutants.

The major finding of the RI was that both surface and subsurface soils contained areas of lead contamination in the vicinity of the foundry and the surrounding areas. Surrounding areas containing lead-contaminated soil which may be associated with the Site include portions of the Washington Park Housing, the Effingham Playground, the Effingham Residential Area, the Seventh Street Row Homes, the Drug Rehabilitation Center Property, and vacant lots east of Seventh Street.

Soil ("floor dirt") and dust throughout the interior of the foundry building on the Holland Property contained lead concentrations ranging from 666 mg/Kg to 174,000 mg/Kg. Outdoor soil on the Holland Property contained lead levels of ranging from not detected (ND) to 58,100 mg/Kg within the top two feet. Waste sand beneath the asphalt cap on the Abex Lot was found to have lead concentrations ranging from 31 mg/Kg to 29,300 mg/Kg. Lead levels ranging from 14 mg/Kg to 4,750 mg/Kg occurred within the top two feet of soil under the asphalt within the McCready Lot.

Lead levels ranging from ND to 46,500 mg/Kg were detected in soil at depths of one to four feet in portions of the Washington Park Housing Project. However, no significantly elevated concentrations of lead were found in surface soils remediated during the Abex removal activities from 1986 to 1989. Subsurface soil in the Effingham Playground contains lead levels ranging from ND to 5,000 mg/Kg. Contaminated surface

Original
(Recd)

soil (generally 6 to 12 inches) in Effingham Playground was previously excavated and removed by Abex pursuant to a Consent Order signed with EPA in August 1986. A few additional areas in the Washington Park Housing and the Effingham Playground were identified during the RI as having surface soil contamination above 500 mg/Kg. Soil in these areas was expeditiously excavated and removed by Abex in July of 1992 pursuant to a unilateral order issued by EPA in March of 1992.

Surface and subsurface soil within the Effingham Residential Areas had lead concentrations ranging from ND to 15,000 mg/Kg. Additional sampling performed by EPA as part of the 1992 removal action detected elevated levels of lead ranging up to 3,739 mg/Kg in crawl spaces beneath eleven of sixteen homes sampled in this area.

Soil in lots associated with the Seventh Street Row Homes contained lead at levels ranging from ND to 19,100 mg/Kg at 0 to 2 feet in depth. However, elevated levels of surface soil contamination in the row home lots had been remedied by Abex pursuant to the 1986 Consent Order. Attics of two Seventh Street Row Homes contained dust of unknown origin with lead levels ranging from 3,290 mg/Kg to 7,030 mg/Kg.

Surface soil within the drug rehabilitation center property contained lead at levels ranging from ND to 9,370 mg/Kg. Lead was also detected in surface soil of the vacant lots east of Seventh Street at levels of up to 1,200 mg/Kg, with subsurface soils containing lead of up to 6,000 mg/Kg.

3.2 Feasibility Study

The Feasibility Study report summarized and described the results of the Feasibility Study undertaken to develop and evaluate the remedial action alternatives. The report summarized the feasibility of implementing several remedial action alternatives. All alternatives discussed comply with applicable or relevant and appropriate requirements of Environmental and Public Health laws. The individual technologies comprising each alternative addressed specific areas of the Site and the combination of the individual technologies for a given alternative addressed the entire Site. Each of the remedial action alternatives was evaluated against criteria derived from the NCP of CERCLA and the Superfund Amendments and Re-authorization Act of 1986 (SARA).

Based on the results of the Remedial Investigation, including the Risk Assessment, the Feasibility Study and community input, EPA selected Alternative 4 in the September 1992 ROD as the most appropriate, given its consistency with the NCP and good environmental practice. Alternative 4 involves Structure Decontamination, Soil Excavation and Off-Site Disposal and Capping. Subsequently, in August 1994, EPA amended the ROD to reflect changes in excavation requirements (refer to Section 5.0 for additional details).

4.0 REMEDIAL DESIGN WORK PLAN

4.1 Overview of Design Process

The RDWP provides the framework for the design of the remedy as set forth in pages 52-57 of the Amended ROD and the ESD (in Appendix D of the Consent Decree).

The Site has been well characterized by the RI; no additional characterization will occur in the field during the remedial design activities. Since no field work is necessary to prepare the remedial design documents, no Sampling Analysis Plan (SAP), Quality Assurance Project Plan (QAPjP) and Health and Safety Plan (HASP), as required by paragraph VI. C. 1 and 2 of the Consent Decree, will be submitted for remedial design activities. In addition, no Remedial Design Requirements Permitting Plan or Remedial Design Contingency Plan will be submitted with this plan. A Remedial Action Permitting Plan and Remedial Action Contingency Plan will be submitted with the Final Design Submittal as discussed in Section 4.2.3 below.

Additional sampling to characterize the exact location of lead contamination will be conducted immediately prior to remediation of specific areas. Similarly, any sampling for treatability study requirements may be conducted at the beginning of the remedial action. Accordingly, the SAP, QAPjP and HASP necessary for sampling activities will be included in the Preliminary Design Submittal as discussed below in Section 4.2.1.

Currently, GEO is preparing a separate work plan for the expeditious demolition of the former foundry structures, Seventh Street Row Homes and Effingham Residential Area homes. This plan will be submitted as soon as possible for EPA review. Although we cannot guarantee that demolition activities in all three of these areas can be accomplished in one phase, since Abex and the City of Portsmouth have not yet purchased or condemned all the homes, Abex proposes to proceed with demolition work as soon as possible. If delays are encountered in the acquisition and/or condemnation process, demolition of row homes and private residences will be done at a future date.

4.2 Design Submittals

Remedial design will be conducted in three steps according to procedures outlined in Paragraph VI, C. 3-5 of the Consent Decree. Below, we discuss the three-step design preparation and review process and the scope of each step. GEO will prepare the design documents on behalf of Abex, and will submit them for EPA review in accordance with the schedule in Section 6.0.

4.2.1 Preliminary Design Submittal

As required by the Consent Decree, the Preliminary Design submittal will include, at a minimum, the following: (1) design criteria; (2) project delivery strategy; (3) preliminary plans, drawings and sketches; (4) required specifications in outline form; and (5) preliminary construction schedule. In addition, the Preliminary Design Submittal will include a SAP, QAPjP and HASP for any delineation or treatability study sampling to be conducted in the field during remedial activities.

The scope of the Preliminary Design will address at least 30% of the total design and will be based on data furnished for the project. This document will include the design criteria appropriate for each of the delineated areas. These areas will be delineated based on the zoning characteristics discussed in the Amended ROD. The areas zoned commercial/light industrial are:

- Abex Lot
- Holland Property
- McCready Lot
- Seventh Street Row Homes
- Quadrants II and III
- Effingham Playground and Residential Area

Areas remaining residential are:

- Washington Park Housing

4.2.2 Pre-Final Design Submittal

The Pre-Final Design submittal will include, at a minimum, the following plans, as well as expeditious schedules and specific methodologies for implementation of these plans: (1) Pre-Final designs and specifications for the remedial action; (2) Draft Operation and Maintenance Plan; (3) Remedial Action Construction Plan; (4) Draft Remedial Action Construction Quality Assurance Plan (CQAP); (5) Field Sampling Plan that is directed at measuring progress towards meeting Performance Standards; (6) Groundwater Monitoring Plan consistent with the Amended ROD; (7) Specifications for preparation of a Health and Safety Plan for field activities required by the Pre-Final design; and (8) Draft of specifications for preparation of procedures and plans for the decontamination of equipment and disposal of contaminated materials (the "Decontamination Plan").

The Pre-Final Design documents will be submitted at 90% completion of design. Abex will confirm that specifications required for preparing the Health and Safety Plan and the Decontamination Plan are met by Abex's contractor(s).

4.2.3 Final Design Submittal

The Final Design Submittal will consist of the final design plans and specifications. As required in the Consent Decree, it will include, at a minimum, the following plans, as well as expeditious schedules and specific methodologies for implementation of these plans: (1) Final Design and Specifications for the Remedial Action; (2) Final Operation and Maintenance Plan; (3) Final Remedial Action Construction Plan; (4) Final Remedial Action Construction Quality Assurance Plan (CQAP); (5) Final Field Sampling Plan to confirm achievement of Amended ROD performance standards; (6) Groundwater Monitoring Plan; (7) Final specifications for a Health and Safety Plan for field activities required by the Final Design; (8) Final Decontamination Plan; (9) Remedial Action Permitting Requirements Plan; and (10) Remedial Action Contingency Plan.

The Decontamination Plan will be submitted to EPA by Abex for approval, and the Health and Safety Plan for field activities will be submitted for EPA acceptance, in accordance with the schedule set forth in the Final Design submittal. Upon approval of the Decontamination Plan and acceptance of Health and Safety Plan, these plans will be incorporated in the Remedial Action Work Plan.

The CQAP, which will detail the approach to quality assurance during construction activities at the Site, will specify an Independent Quality Assurance Team (IQAT) to conduct a quality assurance program during the construction phase of the project. The IQAT will be responsible for examining and testing various materials, procedures and equipment during implementation of the construction activities. The IQAT will perform on-site inspections of the work to assess compliance with project standards, verify that the construction quality assurance plan is implemented, and report to Abex and EPA the results of all inspections.

The quality of the design documents will be such that they will enable Abex to include them in a bid package and invite contractors to submit bids for the construction project.

5.0 RECORD OF DECISION

The Amended ROD, executed in August 1994, identified the major components of the selected remedy and the required performance standards. The EPA revised the remedy previously selected to address OU-1 for the Site. The revised selected remedy is based on the premise that: (1) the Effingham Residential Area, the Effingham Playground, and the Seventh Street Row Homes will be rezoned commercial/industrial and will be occupied in a manner not inconsistent with such zoning classification; and (2) the institutional controls described in the remedy are in place no later than the completion of the preliminary remedial design for the remedy.

CONFIDENTIAL

Below we summarize the remedial requirements as outlined in the Amended ROD and the ESD. The remedial design to be developed in accordance with this work plan will incorporate the Amended ROD and ESD requirements.

5.1 Soil Excavation

5.1.1 Performance Standards

- Soil exceeding 500 mg/Kg lead will be excavated to the water table in the Abex Lot and areas zoned for residential use at the completion of the preliminary remedial design. To the extent practicable, such excavation will be performed when the water table is at its seasonally low elevation.
- Soil exceeding 500 mg/Kg lead in the first foot and 1,000 mg/Kg lead, at depths between one and two feet, will be excavated in areas zoned for commercial/light industrial uses (except for the Abex Lot) as anticipated in the August 1994 Amended ROD, the ESD and the January 1996 Consent Decree.
- Institutional land-use controls will be implemented to control any future excavation in remediated commercial/light industrial areas to prevent exposure to contaminated soil.
- Soil beneath existing permanent covers (such as buildings without crawl spaces, parking lots, sidewalks, and streets), will not be removed. These covers will be maintained and EPA-approved institutional land-use controls will be used to prevent future exposure to contaminated soil beneath these covers. Covers falling outside the definition of "existing permanent covers", as defined in the Amended ROD, the ESD and the Consent Decree will be removed as part of the remedy. Contaminated soil beneath these covers will be excavated.

5.1.2 Additional Components

- Temporary relocation may be provided to residents while excavation is occurring around residential units. The extent of soil to be removed around each residential unit under this ROD amendment will be evaluated during the remedial design phase. The U.S. Department of Transportation Uniform Relocation Act and accompanying regulations will be used as guidelines, in accordance with the Amended ROD, ESD and Consent Decree.
- Dust suppression measures will be used to prevent contaminated dust from rising into the air and from entering homes or adjacent areas. Sampling of the interior of

Original
(Red)

adjacent homes will be performed before, during and after excavation to confirm that dust control measures have been effective.

- Erosion and sediment control measures will be installed in accordance with the substantive requirements of the Virginia Erosion and Sediment Control Law, Code of Virginia §§ 10.1-560 et seq., the Virginia Erosion and Sediment Regulations, VR § 625-02-00, and the City of Portsmouth's Erosion and Sediment Control Ordinance.
- All excavated areas will be backfilled with clean fill; areas vegetated prior to excavation will be restored to original conditions, to the extent practicable.
- Additional sampling and analysis of soil will be performed prior to excavation to determine the extent of contamination in the vicinity of proposed excavation. Sampling and analysis will also be performed after excavation to confirm that cleanup levels set forth in the performance standards have been achieved.
- Excavated soil and waste materials will be temporarily staged on-site, to the extent practicable, in areas of existing contamination prior to treatment and/or transportation to an off-site disposal facility. Containment measures, sufficient to provide protection in the event of flooding, will be used in areas with staged material to confirm that there are no unacceptable air or water-borne releases of contamination from these areas. Areas that are used to stage excavated material will be secured with a fence to prevent trespassing.
- When the final areas of contamination are being addressed, excavated soil and waste materials may need to be staged in areas where cleanup has previously occurred or are otherwise not contaminated above levels requiring excavation. In all these instances, soil and waste materials will be staged in containers in accordance with RCRA regulations.

5.2 Soil Treatment and Disposal

5.2.1 Performance Standards

- Contaminated soil and waste materials that do not exhibit toxicity on testing using TCLP will be disposed of off-site at a permitted RCRA Subtitle D landfill.
- Soil and waste material that exhibit toxicity will be treated prior to disposal using a stabilization process. If feasible, hazardous materials may be transported to an off-site facility for treatment prior to disposal.

- Treated material that no longer exhibits toxicity using TCLP will be disposed of off-site in a permitted RCRA Subtitle D landfill. Treated material that continues to exhibit toxicity will either be subject to additional treatment to further reduce toxicity, or disposed of off-site in an approved RCRA subtitle C landfill, while observing RCRA land disposal restriction (LDR) requirements.

5.2.2 Additional Components

- Air monitoring for lead and dust will be performed before, during and after the remedial work to compare air emission concentrations with the National Primary and Secondary Ambient Air Quality Standard for lead.
- The on-site soil treatment unit will be housed in a temporary structure to minimize exposure to the elements and the opportunity for air- or water-borne releases.
- Treated material that no longer exhibits toxicity using TCLP will be staged on-site in containers in preparation for transportation. Treated material that continues to exhibit toxicity will be staged in accordance with the same requirements described above for staging untreated excavated soil and waste materials.
- Any transportation of hazardous waste from the Site will be performed in accordance with VHWMR Part VII, Regulations Applicable to Transporters of Hazardous Waste and RCRA requirements, as defined in 40 C. F. R. Parts 262, 263, and 268, and 49 C. F. R. Parts 107 and 171-179. Any local roads damaged by the increased truck traffic associated with the remedial action will be repaired in a timely manner following the conclusion of the on-site activity.
- Any off-site discharge of water generated from the on-site soil treatment system or from Site decontamination activities will be in compliance with the Virginia Surface Water Standards and the Virginia Pollution Discharge Elimination System (VPDES) requirements. Any disposal of wastewater at a local Publicly-Owned Treatment Works (POTW) will be in compliance with the POTW's VPDES permit and pre-treatment standards or requirements.
- Any treatment and/or storage units used during the remedial action (i.e., waste piles, tanks or containers for storage or treatment) that are regulated under VHWMR/RCRA requirements will meet the closure and post-closure care requirements of 40 C. F. R. Part 264, Subpart C and VR § 9.6, Closure and Post-Closure.

5.3 Building Demolition

5.3.1 Performance Standard

- All existing structures on the Holland Property associated with the former foundry operations, as well as the Effingham Residential Area and the Seventh Street Row Homes, will be demolished. Debris resulting from such demolition which exhibits toxicity using TCLP will be decontaminated in accordance with RCRA LDR requirements effective at the time when demolition occurs. Debris which continues to exhibit toxicity after decontamination will be disposed of in a permitted RCRA Subtitle C landfill. Debris that does not exhibit toxicity will be disposed of in a permitted RCRA Subtitle D landfill.

As indicated above, in Section 4.1, GEO is currently preparing a Work Plan for the demolition of the former foundry structures. The Work Plan will be submitted in the near future for EPA review.

5.3.2 Additional Components

- Equipment which is contaminated with or constitutes a RCRA hazardous waste will be disposed of off-site in accordance with the requirements of RCRA Subtitle C, including the LDR requirement. Equipment which is not contaminated with or is not a RCRA hazardous waste, or which is decontaminated such that it does not constitute RCRA hazardous waste, may be used or disposed of off-site in a manner not inconsistent with applicable laws or regulations. Residuals generated as a result of decontamination activities will be tested under TCLP and/or disposed of as required by RCRA Subtitle C and any other laws or regulations which may be applicable to such wastes.

6.0 SCHEDULE OF RDWP

GEO proposes the following schedule for the submission of Remedial Design documents after EPA approval of the RDWP. Of course, GEO and Abex will endeavor to expedite this schedule whenever practicable.

- Preliminary Design (30%) within 90 days of RDWP approval.
- Pre-Final Design (90%) within 180 days of RDWP approval.
- Final Design within 210 days of RDWP approval.
- Specifications for bidding by contractors issued within 60 days of the Final Design approval.
- Evaluate and award bids within 90 days of bid closure submittal date.
- Remedial work will begin within 60 days of contract award.